

CLAIMS

What is claimed is:

1. An organic light-emitting diode (OLED), comprising:

a transparent substrate;

a first electrode disposed on the transparent substrate;

at least one organic functional layer disposed on the first electrode;

a second electrode disposed on the organic functional layer; and

a lid disposed above the second electrode has at least one heat-dissipating pin mounted on the lid.
2. The OLED of claim 1, wherein the lid and the heat-dissipating pin are formed together.
3. The OLED of claim 1, wherein the operational temperature of the OLED is equal to or less than 60°C.
4. The OLED of claim 1, wherein the lid and/or the heat-dissipating pin are made of a heat-conducting material.
5. The OLED of claim 4, wherein the heat-conducting material has a heat-conducting coefficient larger than 50 W/m-k.
6. The OLED of claim 1, wherein the radiation coefficient of the color of the heat-dissipating pin is greater than 0.9.
7. The OLED of claim 1, wherein the OLED is mounted on a main body contacted with the heat-dissipating pin.
8. The OLED of claim 1, wherein the lid and the heat-dissipating pin have power

dissipation equal to or less than 5°C/W.

9. The OLED of claim 1, further comprising:
 - a fan disposed aside the heat-dissipating pin.
10. An organic light-emitting diode (OLED), comprising:
 - a transparent substrate;
 - a first electrode disposed on the transparent substrate;
 - at least one organic functional layer disposed on the first electrode;
 - a second electrode disposed on the organic functional layer;
 - a covering component disposed above the second electrode; and
 - a heat-dissipating component disposed on the covering component.
11. The OLED of claim 10, wherein the operational temperature of the OLED is equal to or less than 60°C.
12. The OLED of claim 10, wherein the heat-dissipating component has power dissipation equal to or less than 5°C/W.
13. The OLED of claim 10, further comprising:
 - a fan disposed aside the heat-dissipating component.
14. The OLED of claim 10, wherein the covering component is a lid.
15. The OLED of claim 10, wherein the covering component is a passivation film.
16. The OLED of claim 10, wherein at least one heat-dissipating pin is disposed on the heat-dissipating component.
17. The OLED of claim 10, wherein the covering component and/or the

heat-dissipating component are made of a heat-conducting material.

18. The OLED of claim 17, wherein the heat-conducting material has a heat-conducting coefficient larger than 50 W/m-k.
19. The OLED of claim 16, wherein the radiation coefficient of the color of the heat-dissipating pin is greater than 0.9.
20. The OLED of claim 16, wherein the OLED is mounted on a main body contacted with the heat-dissipating pin contacts the main body.